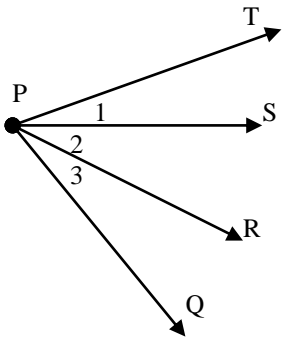


Name \_\_\_\_\_

Date \_\_\_\_\_

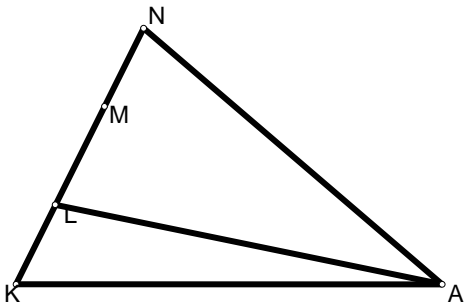
201 Chapter 2: Proofs 1

1. Given:  $\angle TPR \cong \angle QPS$   
Prove:  $m\angle 1 = m\angle 3$



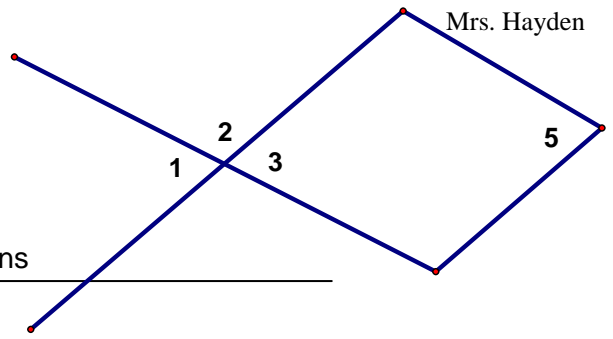
Statements	Reasons

2. Given:  $\overline{KL} \cong \overline{MN}$   
Prove:  $\overline{KM} \cong \overline{LN}$



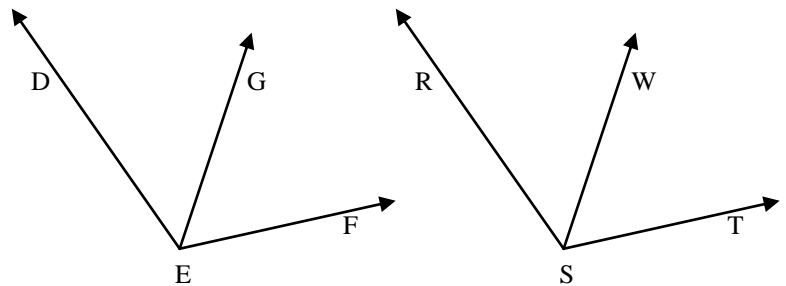
Statements	Reasons

3. Given:  $\angle 1 \cong \angle 5$   
 Prove:  $\angle 2$  and  $\angle 5$  are supplementary



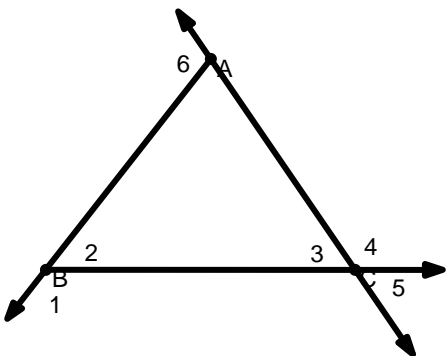
Statements	Reasons
1) $\angle 1 \cong \angle 5$	1.
2) $m\angle 1 = m\angle 5$	2.
3) $\angle 1$ and $\angle 2$ are a linear pair	3.
4) $\angle 1$ and $\angle 2$ are supplementary	4.
5) $m\angle 1 + m\angle 2 = 180$	5.
6) $m\angle 5 + m\angle 2 = 180$	6.
7) $\angle 2$ and $\angle 5$ are supplementary	7.

4. Given:  $\overrightarrow{EG}$  is the bisector of  $\angle DEF$ ,  
 $\overrightarrow{SW}$  is the bisector of  $\angle RST$   
 $m\angle DEG = m\angle RSW$   
 Prove:  $m\angle DEF = m\angle RST$



Statements	Reasons
1) $\overrightarrow{EG}$ is the bisector of $\angle DEF$ , $\overrightarrow{SW}$ is the bisector of $\angle RST$	1) Given
2) $m\angle DEG = m\angle GEF$ $m\angle WST = m\angle RSW$	
3) $m\angle DEG + m\angle GEF = m\angle DEF$ $m\angle WST + m\angle RSW = m\angle RST$	
4) $m\angle DEG + m\angle DEG = m\angle DEF$ $m\angle RSW + m\angle RSW = m\angle RST$	
5) $2m\angle DEG = m\angle DEF$ $2m\angle RSW = m\angle RST$	
6) $m\angle DEG = m\angle RSW$	6) Given
7) $2m\angle DEG = 2m\angle RSW$	
8) $m\angle DEF = m\angle RST$	

5. Given:  $\angle 2 \cong \angle 3$   
 Prove:  $\angle 1 \cong \angle 4$

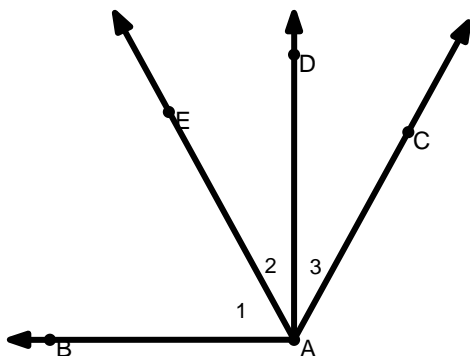


Statements	Reasons

6. Given:  $\overrightarrow{AB} \perp \overrightarrow{AD}$

$\overrightarrow{AD}$  bisects  $\angle EAC$

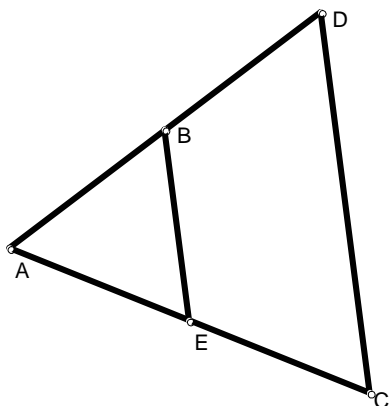
Prove:  $m\angle 1 + m\angle 3 = 90$



Statements	Reasons

7. Given: midpoint E of  $\overline{AC}$ ,  
 $AC = AD$

Prove:  $2AE = AD$



Statements	Reasons